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23117 7590 09/08/2008

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

NGUYEN, HAI V

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 09/08/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,490

04/10/2007

Marcus Wallmark

4660-9

2153

TITLE OF INVENTION: EXCHANGEABLE MODULE FOR ADDITIONAL FUNCTIONALITY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	12/08/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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23117 7590 09/08/2008

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,490 04/10/2007 Marcus Wallmark 4660-9 2153

TITLE OF INVENTION: EXCHANGEABLE MODULE FOR ADDITIONAL FUNCTIONALITY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1440 \$300 \$0 \$1740 12/08/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
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NGUYEN, HAI V 2618 455-572000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,490	04/10/2007	Marcus Wallmark	4660-9	2153
23117	7590	09/08/2008	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			NGUYEN, HAI V	
			ART UNIT	PAPER NUMBER
			2618	
DATE MAILED: 09/08/2008				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/582,490

Applicant(s)

WALLMARK ET AL.

Examiner

HAI V. NGUYEN

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03 July 2008.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>06/19/2008</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other ____. |

Examiner Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. H. Warren Burnam Jr., registration # 29,366 on 25 July 2008.

The application has been amended as follows:

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An exchangeable power-supplying unit arranged to supply electric power to a device, ~~the~~ said exchangeable power-supplying unit comprising:

at least one processing unit arranged to pre-process information and to communicate said pre-processed information to ~~the~~ said device for providing said device with at least one additional function; and

a cryptographic circuit for coding or decoding said pre-processed information.
2. (Currently Amended) ~~the~~ said exchangeable power-supplying unit according to claim 1, wherein said exchangeable power-supplying unit is connectable to form an integral part of ~~the~~ said device.
3. (Currently Amended) ~~the~~ said exchangeable power-supplying unit according to claim 1, wherein said exchangeable power-supplying unit comprises a communication link for communicating said pre-processed information to ~~the~~ said device.
4. (Currently Amended) ~~the~~ said exchangeable power-supplying unit according to claim 3, wherein said communication link is a high-speed data-bus.
5. (Currently Amended) ~~the~~ said exchangeable power-supplying unit according to claim 1, wherein said cryptographic circuit comprises at least one circuit board~~[[s]]~~ and/or at least one integrated circuit~~[[s]]~~, comprising hardware to form said at least one processing unit~~[[s]]~~.
6. (Currently Amended) ~~the~~ said exchangeable power-supplying unit according to claim

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5, wherein ~~the~~ said at least one circuit board ~~and/or the~~ said at least one integrated circuit further comprises at least one of a mass-storage, a WLAN-modem, and a positioning device.

7. (Currently Amended) ~~the~~ said exchangeable power-supplying unit according to claim 1, wherein said exchangeable power-supplying unit is a battery.

8. (Currently Amended) A device comprising an exchangeable power-supplying unit, ~~the~~ said exchangeable power-supplying unit comprising:

at least one processing unit arranged to pre-process information and to communicate said pre-processed information to ~~the~~ said device for providing said device with at least one additional function~~[[s:]]~~; and

a cryptographic circuit for encoding or decoding said pre-processed information.

9. (Currently Amended) ~~A~~ said device according to claim 8, wherein said device is a wireless handheld device, comprising at least one of a mobile phone, a PDA, a digital notebook, a land-radio, a two-way radio, a walkie-talkie, and an intelligent device.

10. (Currently Amended) ~~A~~ said wireless handheld device according to claim 9, wherein ~~the~~ said exchangeable power-supplying unit has access to a receive/transmit channel of ~~the~~ said wireless handheld device.

11. (Currently Amended) A telecommunication system comprising a device, ~~the~~ said device comprising an exchangeable power-supplying unit, ~~the~~ said exchangeable power-supplying unit comprising:

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at least one processing unit arranged to pro-process information and to communicate said pre-processed information to ~~the~~ said device for providing said device with at least one additional function~~[[s-]]~~; and

a cryptographic circuit for encoding or decoding said pre-processed information.

12. (Currently Amended) A method for providing a device with at least one additional functionality, using an exchangeable power-supplying unit arranged to supply electric power to ~~the~~ said device and connected to said exchangeable power-supplying unit to form an integral part of ~~the~~ said device, the method comprising:

pre-processing information in at least one or several of processing units;

encoding or decoding said pre-processed information in said exchangeable power-supplying unit by means of at least one circuit board~~[[s]]~~ and/or one or several at least one or several of integrated circuits comprising hardware to form a cryptographic circuit~~[[,]]~~; and

communicating said encoded or decoded said pre-processed information to ~~the~~ said device.

13. (Previously Presented) A method according to claim 12, wherein said ~~communication~~ communicating is performed through a high-speed communication link.

14. (Previously Presented) A method according to claim 12, wherein said at least additional functionality is one or several of a cryptographic functionality, a mass-storage functionality, a WLAN functionality or a positioning functionality.

15. (Currently Amended) A method according to claim 12, wherein said device is a wireless handheld device ~~is~~ comprising at least one of a mobile phone, a PDA, a digital

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notebook, a land-radio, a two-way radio, a walkie-talkie, and an intelligent device.

16. (Currently Amended) ~~the~~ said device according to claim 8, wherein said exchangeable power-supplying unit is connectable to form an integral part of ~~the~~ said device.

17. (Currently Amended) ~~the~~ said device according to claim 8, wherein said exchangeable power-supplying unit comprises a communication link for communicating said pre-processed information to ~~the~~ said device.

18. (Currently Amended) ~~the~~ said device according to claim 17, wherein said communication link is a high-speed data-bus.

19. (Currently Amended) ~~the~~ said device according to claim 18, wherein said cryptographic circuit comprises at least one circuit board ~~and/or~~ at least one integrated circuit, comprising hardware to form at least one processing unit[[s]].

20. (Currently Amended) ~~the~~ said device according to claim 19, wherein ~~the~~ said at least one circuit board ~~and/or the~~ said at least one integrated circuit further comprises at least one of a mass-storage, a WLAN-modem, and a positioning device.

21. (Previously Presented) the system according to claim 11, wherein said device is a wireless handheld device comprising at least one of a mobile phone, a PDA, a digital notebook, a land-radio, a two-way radio, a walkie-talkie, and an intelligent device.

22. (Currently Amended) A system according to claim 21, wherein ~~the~~ said exchangeable power-supplying unit has access to a receive/transmit channel of ~~the~~ said wireless handheld device.

Drawings

2. The following changes to the drawings 1A, 1B, 2 have been approved by the examiner according to MPEP 37 CFR 1.84(o). In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance:

4. The primary reason for allowance of the claims is based on the inclusion of the element of *"A wireless mobile (Figure 2, element 400) including an exchangeable power-supplying unit (Figure 2, element 300) comprising a cryptographic circuit (Figure 2, element 312) for encoding or decoding said pre-processed information"* in independent claims 1, 8, 11, 12 and of Applicant's remarks on page 17-19 received on 03 July 2008. The prior art are silent of the element above as explained below:

Abraham US patent # 5,048,085 only discloses in *Figure 4 that the cryptographic module 31 comprising the battery backup circuit 77.*

Maeda et al. US patent # 5,926,546 discloses only in figure 1 that, *"The crypto module 14 may be built inside or attached to the vehicle-mounted device 10 and is for changing the encryption algorithm or the key data used for encryption. In other words, the crypto module 14 may be detached from the vehicle-mounted device 10 to reprogram its encryption software or may remain its encryption algorithm and key data. In this way, it is possible to change the encryption algorithm and the key data of the crypto module (col. 7, lines 34-43)".*

Yamauchi et al. US patent # 6,728,827 B2 discloses only in figure 38 that, *"A logic integrated DRAM 30 includes a SDRAM section 32 and a logic section 34 including a cryptographic operation logic 74 and a register section 72 holding mode information for controlling the cryptographic operation logic 74, data inputted to the cryptographic operation logic 74 and an operation result of the cryptographic operation*

logic 74 in response to an output of the interface section 36, (col. 20, lines 64-65, col. 21, lines 33-38)".

Ryan, Jr. et al. US patent # 6,748,535 B1 discloses only in figures 1, 2 that, *"During cryptographic operations, processor opens switch 41 and the charge stored in capacitor C1 is used to power cryptographic coprocessor 22 through the crypto power line, generally designated 44. When switch 41 is open, no power fluctuations of cryptographic coprocessor 22 are conducted out the external power input line 30 and, therefore, fluctuation on line 30 cannot be correlated with individual cryptographic operations, and DPA cannot be performed, Col. 7, lines 26-35".*

Vatanen US 6,957,342 B2 discloses only in Figures 1, 3 that, *"A security module (Figure 1, element Security Module 3; Figure 3, element SM1) integrated with the mobile station power source (Figure 3, element 12) and including encryption means and a first connection interface (Figure 1, element IF1), as described above in conjunction with the security module. The security module is preferably arranged to process information transmitted by the mobile station (Figure 3, element MS) over a telecommunication network and/or via a local communication interface of the mobile station. The security module may communicate with the mobile station and/or an external terminal or device by using Bluetooth technology (col. 4, lines 24-32; col. 5, lines 5-9; col. 6, lines 32-42)".*

Dellmo et al. US 2002/0095594 discloses only in figure 2 that, *"A secure wireless LAN device including a cryptographic circuit comprising one volatile memory for storing*

the cryptographic information, and a battery for maintaining the cryptographic information in the volatile memory, (Abstract)".

Hayashi US 2003/0074572 A1 discloses only in figure 1 that, *"The battery comprises a charges portion 20-2 in which electric charge are accumulated; the control circuit 20-1 which charges the charged portion 20-2 in response to a signal from the handheld terminal 1 and writes/reads the contexts including the number of cycles of charging /discharging and the private key "a" to/from the flash memory 20-3; and the flash memory 20-3 which stores the contexts including the number of cycles of charging/discharging and the private key "a", ([0027])"*.

Brown et al. US 2003/0128843 A1 discloses only in figure 1 that, *"The portable device 10 comprises a cryptographic circuitry 62, power supply 14, a backup power 30"*.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. **Claims 1-22 are allowed.**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAI V. NGUYEN whose telephone number is (571)272-3901. The examiner can normally be reached on 6:00-3:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hai V. Nguyen/
Examiner, Art Unit 2618

/Matthew D. Anderson/
Supervisory Patent Examiner, Art Unit 2618